fax: Al Kozak — gd'4 pgs
for response
by 4/24/04

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:
UNISYS CORPORATION
UNISYS CORPORATION
UNISYS WAY MS/E8-114
BLUE BELL, PA 19424-0001

PCT

WRITTEN OPINION

(PCT Rule 66)

Due
May 12

Date of Mailing (day/month/year)	12 MAR 2004

Applicant's or agent's file reference	REPLY DUE
PCT9/120000	within 2 months/days from the above date of mailing

International application No.	International filing date (day/month/year)	Priority date (day/month/year)
PCT/US02/17099	31 May 2002 (31.05.2002)	

International Patent Classification (IPC) or both national classification and IPC

IPC(7): G06F 15/16 and US Cl.: 709/105, 217, 218, 219; 370/400

Applicant

UNISYS CORPORATION

---

1. This written opinion is the <u>first</u> (first, etc,) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

    I   ☒ Basis of the opinion

    II   ☐ Priority

    III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

    IV   ☐ Lack of unity of invention

    V   ☒ Reasoned statement under Rule 66.2 (a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

    VI   ☐ Certain documents cited

    VII ☐ Certain defects in the international application

    VIII ☐ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

    When? See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension. See rule 66.2(d).~~

    How?   By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3.
              For the form and the language of the amendments, see Rules 66.8 and 66.9.

    Also   For an additional opportunity to submit amendments, see Rule 66.4.
              For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 *bis*.
              For an informal communication with the examiner, see Rule 66.6

    If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary
    examination report must be established according to Rule 69.2 is: <u>30 September 2004 (30.09.2004)</u>

Name and mailing address of the IPEA/US	Authorized officer
Mail Stop PCT, Attn: IPEA/US	571-272-3898
Commissioner for Patents	JACK B. HARVEY
P.O. Box 1450	Peggy Harrod
Alexandria, Virginia 22313-1450	Telephone No. (703) 305-9605
Facsimile No. (703) 305-3230	571-272-4232

Form PCT/IPEA/408 (cover sheet)(July 1998)

Beatrice Prieto
2142

I. Basis of the opinion

1. With regard to the elements of the international application:*

   ☒ the international application as originally filed

   ☒ the description:
   pages <u>1-15</u>, as originally filed
   pages <u>NONE</u>, filed with the demand
   pages <u>NONE</u>, filed with the letter of _____.

   ☒ the claims:
   pages <u>16 and 17</u>, as originally filed
   pages <u>NONE</u>, as amended (together with any statement) under Article 19
   pages <u>NONE</u>, filed with the demand
   pages <u>NONE</u>, filed with the letter of _____.

   ☒ the drawings:
   pages <u>1-3</u>, as originally filed
   pages <u>NONE</u>, filed with the demand
   pages <u>NONE</u>, filed with the letter of _____.

   ☐ the sequence listing part of the description:
   pages <u>NONE</u>, as originally filed
   pages <u>NONE</u>, filed with the demand
   pages <u>NONE</u>, filed with the letter of _____.

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
   These elements were available or furnished to this Authority in the following language _____ which is:

   ☐ the language of a translation furnished for the purposes of international search (under Rule23.1(b)).

   ☐ the language of publication of the international application (under Rule 48.3(b)).

   ☐ the language of the translation furnished for the purposes of international preliminary examination(under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

   ☐ contained in the international application in printed form.

   ☐ filed together with the international application in computer readable form.

   ☐ furnished subsequently to this Authority in written form.

   ☐ furnished subsequently to this Authority in computer readable form.

   ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

   ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

   ☐ the description, pages <u>NONE</u>
   ☐ the claims, Nos. <u>NONE</u>
   ☐ the drawings, sheets/fig <u>NONE</u>

5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

* *Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."*

V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims	1-9	YES
	Claims	NONE	NO
Inventive Step (IS)	Claims	NONE	YES
	Claims	1-9	NO
Industrial Applicability (IA)	Claims	1-9	YES
	Claims	NONE	NO

2. CITATIONS AND EXPLANATIONS

Claims 1-9 lack an inventive step under PCT Article 33(3) as being obvious over Joffe et. al. (US 6,185,619) in view of Attanasio et. al. (US 5,918,017). Joffe et. Al. teaches substantial features of the invention as claimed including a computing system comprising a client (25 of Fig. 1C column 5, lines 1-5, 3-67) and a plurality of servers (column 5, lines 10-32, plurality of servers see column 9, lines 26-39) for serving client request (see column 6, lines 46-66), further including assigning (scheduling) request transactions within a computing system (see column 3, lines 44-63), including receiving a client transaction request from a client (25 of Fig. 1C) (column 11, lines 27-29); determining the number of currently open TCP connections and the server processor idle time (column 12, lines 17-23, column 30-37, 55-61) and forwarding the transaction request to the best server available among a plurality of server based on best metric value; however although Joffe et. al. suggest directing the transaction request to the most idle server process, it does not explicitly teach forwarding transaction request to server process having currently opened connection, i.e. connection that have not time out since the last finished execution of a previous transaction (column 5, lines 14-35). It would have been obvious to one ordinary skilled in the art at the time the invention was made given Joffe's et. al. suggestion of considering still opened connections that have recently finished execution of a previous transaction and therefore have not timeout and closed after the last finished execution as the best server to which transactions request should be forward, to consider Attanasio's et. al. teachings for forwarding transaction request to server process having currently opened connection, i.e. connection that have not time out since the last finished execution of a previous transaction. Motivation would be to maintain in a gateway transaction processing software the status of server processes include a connection table of the most recently finishes execution of the previous transaction in a dynamic connection table maintaining the status of the server processes. Joffe et. al. further teaches a gateway (column 9, lines 27-39) for receiving and allocating transactions request from clients (column 9, lines 40-59) via a director routing policy (column 11, line 65 to column 11, line 14); storing the most recent finish time, i.e. non-timed out connections and the status of a server process (Joffe: column 11, lines 66-column 112, line 23, Attanasio: column 5, lines 2-13, column 10, lines 25-50); method is a software implementation (see Joffe: column 4, lines 49-67), server process interacts with a processor executing the software implementation of the method (see Joffe et. al.: column 4, lines 49-67).

Claims 1-9 meet industrial applicability as defined by PCT Article 33(4). In this case, the above mentioned invention is used in a computing system, such as a client-servers environments for serving, allocating and scheduling client request among a plurality of servers, reducing latency access time retrieval therein.

------------------ NEW CITATIONS ----------------

WRITTEN OPINION

Supplemental Box
(To be used when the space in any of the preceding boxes is not sufficient)

TIME LIMIT:
The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.